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BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Investigation on the Commission's Own Motion on the Late 2019 Public Safety Power Shutoff Events.	I. 19-11-013 (Filed November 13, 2019)

PACIFIC GAS AND ELECTRIC COMPANY'S (U 39 E) RESPONSE TO EMAIL RULING DIRECTING PACIFIC GAS & ELECTRIC COMPANY, SOUTHERN CALIFORNIA EDISON COMPANY, AND SAN DIEGO GAS & ELECTRIC COMPANY TO FILE AN ACCOUNTING OF 2019 AND 2020 PUBLIC SAFETY SHUTOFF EVENT IMPACTS ON REVENUE COLLECTIONS

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Dated: April 7, 2021

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I. INTRODUCTION

On March 10, 2021, Administrative Law Judge (ALJ) DeAngelis issued an email ruling (Ruling) directing Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), and San Diego Gas and Electric Company (SDG&E) to provide an accounting of the Public Safety Power Shutoff (PSPS) events that occurred in its service territory in calendar years 2019 and 2020 and how those PSPS events impacted revenue collections.[1/] The original filing date to provide the accounting information was set for no later than March 24, 2021. On March 19, 2021, the Commission granted in part SDG&E's and PG&E's request for an extension to their March 24, 2021 filings due date. The due date is now April 7, 2021. The Ruling authorized, but did not obligate, PG&E to employ a method similar to the accounting provided by SCE in its 2019 Energy Resource Recovery Account (ERRA) Review Application (A.) 20-04-002 related to 2019 PSPS events and their estimated impacts on revenue collections.

On April 13, 2020, PG&E provided an analysis of its 2019 PSPS events and their estimated revenue impacts in Supplemental Testimony in its 2019 ERRA Compliance Review Application, A.21-03-008. The focus of the revenue impact analysis was on generation and generation-related non-bypassable charge rate components and the associated revenue that is traditionally subject to review in the ERRA Compliance Review Application.[2/]

1/ By email ruling dated March 19, 2021, ALJ DeAngelis extended the deadline for submission to April 7, 2021.

2/ The four generation and generation-related non-bypassable charges above are included in PG&E's ERRA Forecast application, and the entries associated with the ERRA, PABA, and GTSRBA are reviewed as part of the ERRA Compliance proceeding.

In accordance with ALJ DeAngelis' Ruling, PG&E provides herein an accounting of the PSPS events that occurred in its service territory in 2019 and 2020. This accounting expands the evaluation of the revenue collection impact to include CPUC-jurisdictional revenue components, including, distribution, public purpose programs, and other non-bypassable charges, in addition to the generation and generation-related revenue components included in its 2019 ERRA Compliance Review Supplemental Testimony analysis. PG&E will continue to use the same methodology employed previously to develop an estimate of the change in sales, which was described in its ERRA Compliance Supplemental Testimony and is described again in Section C.1, Methodology, below.

II. PUBLIC SAFETY POWER SHUTOFF

PG&E's PSPS Program evaluates whether to proactively de-energize a portion of the Company's electric system in the interest of public safety when a combination of winds that are forecasted to present a statistically high likelihood of causing disruptions to PG&E's above-ground power lines (Outage Producing Winds) and location-specific factors such as vegetation dryness (Utility Fire Potential Index) suggest a heightened risk of catastrophic wildfires.

As described in PG&E's testimony served in the *Order Instituting Rulemaking to Examine Electric Utility De-Energization of Power Lines in Dangerous Conditions* (PSPS Order Instituting Rulemaking (OIR), or Rulemaking (R.) 18-12-005), the wildfire risk in Northern California has changed dramatically in the past several years.[3/] As of 2012, only 15 percent of PG&E's service area was designated as having an elevated wildfire risk on the fire-threat maps recognized by the CPUC at that time. Today, more than 50 percent of PG&E's service area is in designated Tier 2 or Tier 3 High Fire Threat District (HFTD) areas.[4/]

PG&E's ability to predict the scope and duration of a PSPS event is limited to near-term forecasts of weather and vegetation fire potential. The models used to forecast Outage

3/ PSPS OIR, PG&E's February 5, 2020 Testimony, R.18-12-005.

4/ *Id*., Chapter 1, p.1-2, line 22-26, citing to HFTD area maps designated in D.17-12-024, *available at* https://www.cpuc.ca.gov/FireThreatMaps/

Producing Winds and the Utility Fire Potential Index calculate 3-day forecasts four times daily. Results from these models, in conjunction with global and local forecasts from external agencies, are evaluated by members of PG&E's Fire Science and Meteorology team to determine if there is concurrence of a heightened outage risk from a wind event and the potential for large wildfires to occur. If severe weather conditions persist, PG&E then determines the potential scope of a PSPS event by identifying which, if any, distribution and transmission facilities are within the area forecasted to be impacted by the weather event and would require de-energization in order to protect public safety. PG&E's meteorology team continues to closely monitor changing forecasts and conditions, updating the PSPS Incident Command team of any changes in the forecasts or conditions and continually revising the scope of the possible event, both in terms of event magnitude and estimated timing, to reflect the latest forecasted conditions. The updated forecasts may add to or remove additional areas from the scope of the PSPS event.

In 2019, PG&E activated nine PSPS events in response to adverse weather and fire potential indices. In 2020, PG&E activated seven PSPS events, one of which did not actually affect any customers. A general overview for illustrative purposes of PG&E's 2019 and 2020 PSPS events is provided in Table 1 below. Detailed information on PG&E's PSPS Program and the events can be found in the PSPS OIR, R.18-12-005 and in PG&E's publicly available reports.[5/]

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5/ See https://www.pge.com/en_US/residential/outages/public-safety-power-shuttoff/psps-reports.page. (As provided in PG&E's Post Event De-Energization reports submitted to the CPUC, the information, times and figures referenced in those reports and in this submission are based on the best available information available at the time of the reports' submissions to the CPUC.)

TABLE 1
2019 AND 2020 PSPS EVENTS

Line No.	Event Date(s)	Number of Events	Total Average Duration (Hours)	De-Energized Customers (Thousands)
1	June 8-9, 2019	1	16	22
2	September 23-26, 2019	2	16	50
3	October 5-6, 2019	1	14	12
4	October 9-12, 2019	1	37	735
5	October 23-25, 2019	1	25	179
6	October 26-November 1, 2019	2	55	968
7	November 20-21, 2019	1	25	49
8	September 7-13, 2020	1	37	169
9	September 27-29, 2020	1	22	65
10	October 14-17, 2020	1	37	41
11	October 22-23, 2020	1	19	30
12	October 25-28, 2020	1	37	345
13	December 2-3, 2020	1	21	1
14	December 7, 2020[6/]	1	PSPS De-Energization was ultimately not implemented	0

III. ACCOUNTING OF PSPS EVENTS

In any given period, PG&E's electric sales will vary depending on a number of factors including but not limited to weather, time of year, time of week, time of day, economic conditions, and customer behavior.

PG&E submitted the electric sales forecast underlying its 2019 electric generation rates and generation-related non-bypassable charges in the 2019 ERRA Forecast Application (A.18-06-001), and that forecast was adopted by the CPUC in D.19-02-023. PG&E submitted

6/ While PG&E initiated its PSPS protocols, PG&E did not de-energize customers for public safety in the December 7 weather event as the risk of catastrophic wildfire ultimately did not outweigh the public safety risk of de-energization. Due to changes in weather, the event was canceled on December 7.

the electric sales forecast underlying its 2020 electric generation rates and generation-related non-bypassable charges in the 2020 ERRA Forecast Application (A.19-06-001), and that forecast was adopted by the CPUC in D.20-02-047.

These forecasts do not include a forecast of electric kilowatt hours (kWh) sales on a daily or weekly basis, nor does PG&E forecast kWh by circuits or geographic regions affected by the PSPS events. Therefore, PG&E has no baseline from which to compare forecasts for actual electric sales and forecast electric sales during the PSPS events and in the affected PSPS areas. As a result, any accounting of the impacts of PSPS events will necessarily be an estimate that is subject to uncertainty and highly dependent on the assumptions used. Accordingly, PG&E makes no assurances as to the accuracy of the estimated impacts described herein, and the CPUC should be cognizant of the limitations inherent in the forecast methodology described below when deciding whether to take any regulatory action as a result of this analysis.

With that understanding of the inherent limitations in estimating impacts on electric sales, PG&E has estimated the impact to billed revenues for CPUC-Jurisdictional rate components including generation, generation-related non-bypassable charges, distribution, nuclear decommissioning, public purpose program, and the energy cost recovery amount. The rate components and affected balancing accounts are listed in Table 2 below:

TABLE 2
ELECTRIC RATE COMPONENT

Line No.	Electric Rate Component	Balancing Account
1	Generation	Energy Resource Recovery Account (ERRA) Portfolio Allocation Balancing Account (PABA)
2	Generation & E-GT Premium	Green Tariff Shared Renewable (GTSRBA)
2	Power Charge Indifference Adjustment	Portfolio Allocation Balancing Account (PABA)
3	Ongoing Competition Transition Charge	Modified Transition Cost Balancing Account (MTCBA)
4	New System Generation Charge	New System Generation Balancing Account (NSGCBA)

Line No.	Electric Rate Component	Balancing Account
8	Distribution	Distribution Revenue Adjustment Mechanism (DRAM)
9	Nuclear Decommissioning	Nuclear Decommissioning Adjustment Mechanism (NDAM)
10	Public Purpose Program	Public Purpose Program Revenue Adjustment Mechanism (PPPRAM)
11	Energy Cost Recovery Amount	Energy Recovery Bond Balancing Account (ERBBA)

A. Methodology

PG&E quantified the impact of the PSPS events to revenue using the following three steps: (1) developed a hourly comparison profile of electric sales for the affected customer accounts using historical data; (2) compared the results of step 1 to actual electric sales data for the affected customer accounts; and (3) quantified the revenue impact for each customer class by multiplying the difference between the comparison profile of hourly electric sales and actual electric sale by the applicable electric generation or generation-related non-bypassable charge and mapped the revenue change to the associated balancing account.

PG&E estimated the difference between the comparison profile and actual electric sales profile by first identifying specific customer accounts that were impacted by the PSPS events.[7/] Using customer-specific information is beneficial because it provides hourly data, customer type, and rate schedule, which can be used for precisely calculating the revenue impact. To determine a reasonable estimate of what electric retail sales for the service account identification (SAID) might have been, PG&E compared SAID retail sales to sales in a comparison set of days for the same SAID. This comparison set of days was chosen to be as similar as possible to the PSPS days. The comparison set is a same-sized block of days covering the same weekdays as the event. The comparison set is chosen so that it does not overlap with a PSPS event (either the original event or a different PSPS event). Because of boundary effects, it is chosen to be at least

7/ Customer accounts were isolated by SAID which allowed access to hourly metered data to precisely capture individual impacts from PSPS event.

one day before any PSPS event, and at least two days after. Subject to these requirements, it must be as close in time as possible to the PSPS event in question. Given this basic structure, for purposes of analysis, PG&E breaks "ties" by choosing days which are in the same season/same month and contain no holidays. If two candidate comparison blocks are still equivalent, we choose the earlier of the two.

Once PG&E determined the comparison day block for electric retail sales, PG&E calculated the difference between the comparison days' electric sales and the actual metered sales by SAID . The difference in sales was then multiplied by the applicable rate components to determine the revenue impact.

PG&E did not attempt to do a full weather normalization for the hourly electric sales forecast and actual hourly electric sales because typical weather normalization describes the usage over a period of time by customer aggregates grouped by standard weather region. Instead, for this analysis, PG&E wanted to get hour-by-hour effects on a nonstandard customer group. PG&E did not attempt to normalize the weather in a region defined by wind effects, because that would have required refitting existing models, which was not feasible or necessary in this instance. Instead, PG&E chose to use a direct data-driven approach. Comparison days were checked to have similar usage profiles as the PSPS day apart from the PSPS hours as shown in Figure 1-1 below (a sample profile from 2019).

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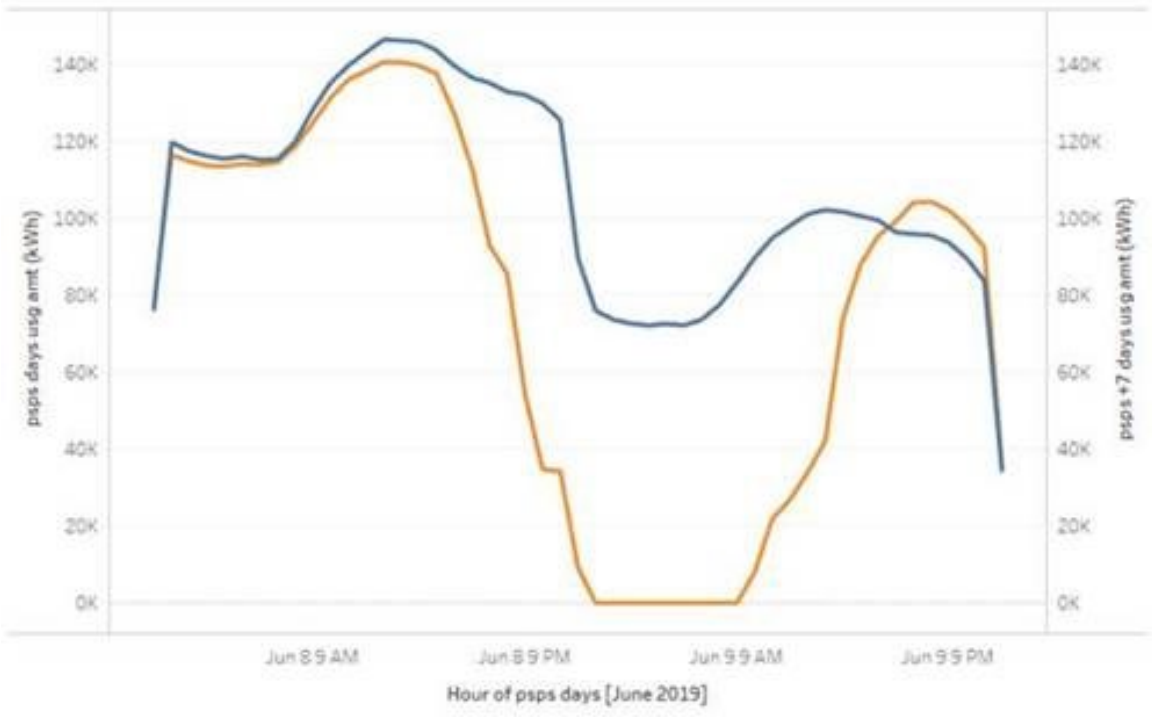
FIGURE 1-1
EXAMPLE HOURLY USAGE PROFILE FOR PSPS EVENT



Next, PG&E quantified the impact to billed revenue as detailed above. The results of the load forecast estimate change in electric sales and revenue impacts are discussed and summarized in Section C.2, below.

B. Results

The estimated impact to revenue for the 2019 PSPS events using the methodologies and assumptions described above totals $13.75 million, which is comprised of $8.73 million attributable to bundled customers and $5.02 million attributable to departing load customers.

The estimated revenue impact for the 2020 PSPS events totals $4.87 million, which is comprised of $3.76 million attributable to bundled customers and $1.11 million attributable to departing load customers.

Tables 3 A and B below present results for bundled customers for years 2019 and 2020, respectively. Tables 4 A and B present results for departing load customers for years 2019 and

2020, respectively. Tables 5 A and B provide a summary of the revenue impact by balancing account for years 2019 and 2020, respectively.

This revenue impact starts with determining a change in electric retail sales for the affected SAIDs and totals approximately 92 gigawatt-hour (GWh) for 2019, which is about 0.11 percent of PG&E's annual 2019 forecast system load. The change in sales for 2020 totals approximately 26 gigawatt-hour (GWh), which is about 0.03 percent of PG&E's annual 2020 forecast system load. The change in load is then multiplied by the applicable rate components to determine the revenue impact.

TABLE 3 A
2019 SUMMARY OF REVENUE IMPACT BY RATE CLASS BUNDLED CUSTOMERS

Line No.	Customer Class	PSPS Actual Sales (kWh)	Comparative Sales (kWh)	Sales Change (kWh)	Wt. Average Rate ($/kWh)	Total Revenue
1	Residential	15,533,435	43,715,765	28,182,330	$0.20243	$5,705,007
2	Small Commercial	2,001,661	6,786,764	4,785,103	$0.21418	$1,024,855
3	Medium Commercial	1,972,338	6,904,409	4,932,071	$0.18519	$913,373
4	Large Commercial	1,670,943	5,840,836	4,169,893	$0.16612	$692,703
5	Streetlights	42,610	67,048	24,438	$0.21976	$5,371
6	Standby	78,227	74,141	(4,086)	$0.13706	($560)
7	Agriculture	485,835	2,281,088	1,795,253	$0.18648	$334,772
8	E-20 T	909,857	901,962	(7,895)	$0.10721	($846)
9	E-20 S	160,899	497,287	336,388	$0.15710	$52,847
10	E-20 P	2,996	8,814	5,818	$0.14029	$816
11	**Total**	**22,858,800**	**67,078,114**	**44,219,314**	**$0.19739**	**$8,728,337**

TABLE 3 B
2020 SUMMARY OF REVENUE IMPACT BY RATE CLASS BUNDLED CUSTOMERS

Line No.	Customer Class	PSPS Actual Sales (kWh)	Comparative Sales (kWh)	Sales Change (kWh)	Wt. Average Rate ($/kWh)	Total Revenue
1	Residential	10,469,175	22,989,831	12,520,656	$0.21089	$2,640,543
2	Small Commercial	1,490,248	3,485,127	1,994,879	$0.22556	$449,963
3	Medium Commercial	1,419,264	3,315,336	1,896,072	$0.19637	$372,339
4	Large Commercial	1,114,960	2,409,651	1,294,690	$0.17293	$223,891
5	Streetlights	18,253	30,030	11,777	$0.23147	$2,726
6	Standby	3,006	3,200	194	$0.14409	$28
7	Agriculture	144,623	460,557	315,934	$0.21701	$68,562
8	**Total**	**14,659,530**	**32,693,732**	**18,034,202**	**$0.20838**	**$3,758,052**

TABLE 4 A
SUMMARY OF 2019 REVENUE IMPACT BY RATE CLASS – DEPARTING LOAD CUSTOMERS

Line No.	Customer Class	PSPS Actual Sales (kWh)	Comparative Sales (kWh)	Sales Change (kWh)	Wt. Average Rate ($/kWh)	Total Revenue
1	Residential	15,642,401	40,001,381	24,358,981	$0.11258	$2,742,419
2	Small Commercial	2,590,624	8,362,945	5,772,321	$0.12713	$733,819
3	Medium Commercial	3,101,547	10,396,375	7,294,828	$0.09422	$687,355
4	Large Commercial	3,458,311	11,309,144	7,850,833	$0.07545	$592,314
5	Streetlights	1,059,054	3,030,410	1,971,356	$0.10852	$213,928
6	Standby	41,525	86,430	44,905	$0.14975	$6,724
7	Agriculture	7,709	2,841	(4,869)	$0.07448	($363)
8	E-20 T	399,218	385,673	(13,546)	$0.01317	($178)
9	E-20 S	168,867	843,844	674,978	$0.07283	$49,162
10	**Total**	**26,469,255**	**74,419,043**	**47,949,788**	**$0.10480**	**$5,025,179**

TABLE 4 B
SUMMARY OF 2020 REVENUE IMPACT BY RATE CLASS - DEPARTING LOAD CUSTOMERS

Line No.	Customer Class	PSPS Actual Sales (kWh)	Comparative Sales (kWh)	Sales Change (kWh)	Wt. Average Rate ($/kWh)	Total Revenue
1	Residential	4,440,213	9,350,392	4,910,179	$0.13668	$671,117
2	Small Commercial	1,110,556	2,154,309	1,043,753	$0.15201	$158,664
3	Medium Commercial	946,933	1,962,306	1,015,373	$0.12022	$122,064
4	Large Commercial	975,823	1,661,921	686,099	$0.10232	$70,201
5	Streetlights	101,588	181,646	80,059	$0.17234	$13,798
6	Standby	50	1,382	1,332	$0.08927	$119
7	Agriculture	419,753	911,255	491,502	$0.14715	$72,324
8	E-20 P	184	1,611	1,427	$0.08354	$119
9	E-20 S	38,493	80,753	42,260	$0.09521	$4,024
10	**Total**	**8,033,592**	**16,305,576**	**8,271,984**	**$0.13448**	**$1,112,430**

TABLE 5 A
SUMMARY OF 2019 REVENUE IMPACT BY BALANCING ACCOUNT

Line No.	Revenue Impact by Balancing Account	[1] ERRA Revenue	[2] GTSRBA Revenue	[3] PABA Revenue	[4] MTCBA Revenue	[5] NSGBA Revenue
1	Residential	$2,442,237	$5,233	$1,469,947	$57,145	$112,731
2	Small Commercial	$404,427	$909	$288,815	$11,169	$16,806
3	Medium Commercial	$430,760	$4,286	$341,681	$13,540	$17,771
4	Large Commercial	$339,328	$5,984	$269,846	$12,480	$17,471
5	Streetlights	$1,691	$0	$47,126	$1,892	$2,608
6	Standby	($257)	$0	$929	$35	$52
7	Agriculture	$136,181	$0	$46,063	$1,700	$2,328
8	E-20 T	($555)	$0	($187)	($18)	($26)
9	E-20 S	$26,761	$0	$24,089	$990	$1,220
10	E-20 P	434	-	147	6	7
11	**Total**	**$3,781,007**	**$16,412**	**$2,488,456**	**$98,939**	**$170,968**

Line No.	Revenue Impact by Balancing Account	[6] DRAM Revenue	[7] NDAM Revenue	[8] PPPRAM Revenue	[9] ERBBA Revenue	[10] Total Revenue
1	Residential	$3,777,779	$566,251	$45,716	($29,611)	$8,447,426
2	Small Commercial	$899,280	$134,031	$9,186	($5,950)	$1,758,674
3	Medium Commercial	$646,048	$142,774	$10,759	($6,891)	$1,600,728
4	Large Commercial	$501,087	$134,899	$10,697	($6,775)	$1,285,017
5	Streetlights	$143,217	$22,152	$1,737	($1,125)	$219,298
6	Standby	$5,209	$186	$33	($23)	$6,164
7	Agriculture	$127,649	$19,942	$1,555	($1,009)	$334,409
8	E-20 T	($9)	($220)	($22)	$12	($1,025)
9	E-20 S	$34,959	$13,470	$1,080	($560)	$102,008
10	E-20 P	159	62	5	(3)	816
11	**Total**	**$6,135,378**	**$1,033,546**	**$80,746**	**($51,935)**	**$13,753,516**

TABLE 5 B
SUMMARY OF 2020 REVENUE IMPACT BY BALANCING ACCOUNT

Line No.	Revenue Impact by Balancing Account	[1] ERRA Revenue	[2] GTSRBA Revenue	[3] PABA Revenue	[4] MTCBA Revenue	[5] NSGBA Revenue
1	Residential	$927,213	$3,392	$729,278	$16,545	$98,410
2	Small Commercial	$146,310	$669	$121,754	$2,764	$12,348
3	Medium Commercial	$140,440	$6,672	$123,241	$2,850	$10,795
4	Large Commercial	$91,005	$676	$78,261	$1,782	$7,344
5	Streetlights	$696	$0	$3,068	$69	$349
6	Standby	$11	$0	$46	$1	$12
7	Agriculture	$22,074	$0	$30,250	$687	$3,018
8	E-20 T	$0	$0	$52	$1	$4
9	E-20 S	$0	$0	$1,612	$36	$130
10	**Total**	**$1,327,749**	**$11,409**	**$1,087,563**	**$24,735**	**$132,412**

Line No.	Revenue Impact by Balancing Account	[6] DRAM Revenue	[7] NDAM Revenue	[8] PPPRAM Revenue	[9] ERBBA Revenue	[10] Total Revenue
1	Residential	$1,329,316	$189,237	$17,407	$862	$3,311,661
2	Small Commercial	$283,260	$38,307	$3,065	$150	$608,627
3	Medium Commercial	$169,872	$37,222	$3,167	$144	$494,403
4	Large Commercial	$89,602	$23,287	$2,037	$98	$294,092
5	Streetlights	$11,818	$427	$92	$5	$16,524
6	Standby	$46	$28	$2	$0	$147
7	Agriculture	$74,591	$9,413	$814	$40	$140,886
8	E-20 T	$43	$16	$2	$0	$119
9	E-20 S	$1,610	$582	$52	$2	$4,024
10	**Total**	**$1,960,158**	**$298,519**	**$26,637**	**$1,300**	**$4,870,482**

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IV. KEY TAKEAWAYS/CONCLUSION

The PSPS events resulted in lower billed revenues of approximately $13.8 million in 2019 and $4.9 million in 2020 as shown in Tables 5 A and 5 B, above. This change in load for 2019 and 2020 reflects about 0.11 percent of annual load reduction and 0.03 percent of annual load reduction, respectively. PG&E regularly experiences fluctuations in annual sales far greater than this magnitude, which are addressed through two-way balancing accounts associated with the generation, distribution, and non-bypassable charge rate components presented in Table 2 above. Revenue impacts from PSPS events are naturally dealt with through the same ratemaking mechanisms.

Respectfully Submitted,

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